

REMARKS

Claims 1, 2, 4, 7, 9, 12, 25, 26, 28, 29, and 31 have been amended. Claims "15A" and 16-18 have been cancelled. Claims 1-15 and 19-31 remain in the application.

The first-occurring instance of claim 15 has been cancelled. The examiner denoted this claim as 15A and the second occurring instance of claim 15 as claim 15B. With the cancellation of the first-occurring instance, the remaining instance is now referred to as claim 15, without any further designation.

The amendments to the claims include rectification of the term "information stream" to "stream of information", and rectification of the term "stream of digital information" to "stream of information". These amendments are voluntary, correct manifest informalities, do not affect the scope of the claims, and were not made in order to place the claims in condition for allowance. Accordingly, they do not affect, or narrow the range of equivalents to which the claims are entitled.

Additionally, amendments to claims 7, 9, 23, and 25 rectify the term "steams" to "streams". These amendments were made at the helpful suggestion of the examiner and make explicit that which was manifest.

In another rectification, the 18th and 19th originally-filed claims were incorrectly denoted as claims 8 and 9. The 18th claim has been cancelled, and the 19th claim is denoted in this paper as claim 19. The applicants regret any inconvenience to the examiner resulting from these informalities.

Claim 1 has been amended by limiting the act of "selecting" to "selecting a first arrangement of synchronization bits in the first stream of information". This amendment is supported in the specification at page 14, line 19 through page 15, line 5, and in FIG. 5 where four blocks, each with an frame synchronization block (FSB) are interleaved into a frame having a header with four interleaved FSBS. Claim 29 has been similarly amended by limiting the transmitter to "a transmitter having an output to provide a first stream of information in a first frame structure with a header including a first arrangement of synchronization bits of the first stream of information".

Objection is made to claims 7-11, 15, and 23-25 for use of the term “steams” when the term “streams” is manifestly intended. The amendments to claims 7, 9, 23, and 25 and the cancellation of the first-occurring claim 15 remove the basis for this objection.

Claims 1-18 are rejected for obviousness over the reference entitled “SONET 101”. Claims 15A and 16-18 have been cancelled and the rejection is moot with respect to them. The rejection is respectfully traversed with respect to claims 1-15 for the following reasons.

Taking claim 1 as exemplary, a method of varying the synchronization structure of a frame is set forth which includes receiving a first stream of information and “selecting a first arrangement of synchronization bits in the first stream of information”, followed by synchronizing the first stream of information into a first frame structure in response to selection of the first arrangement. In this regard, as FIG. 5 and page 14, line 18 through page 15, line 13, et seq. make clear, the “synchronization bits” are synchronization bits of the individual data streams of which the first stream of information is formed. In the example given in the specification and illustrated in FIG. 5, each of 4 255-byte blocks includes an FSB. When the four blocks are interleaved to form a stream of information that is framed into synchronization, data and parity bytes, the frame is synchronized by the interleaved FSBS of the individual blocks which now constitute the synchronization bytes of the frame.

The SONET 101 reference teaches receiving and combining information streams into the payload envelope of a frame. However, the frame has its own transport overhead that is utilized to synchronize the frame. In this regard, the statement is made at page 11 that “SONET provides substantial information, allowing simpler multiplexing and greatly expanded OAM&P capabilities.” In other words, a SONET frame comes equipped with synchronization bits; it does not need to, and does not, harvest them from “a first stream of information”. The reference does not disclose that the synchronization bits for the STS-1 frame are in the first stream of information obtained by combining input streams of DS-1

and DS-3 into the payload envelope. No synchronization bits of this stream are used to synchronize the STS-1 frame; only synchronization bits already in the frame are used to synchronize the frame. Accordingly, SONET 101 omits "selecting a first arrangement of synchronization bits in the first stream of information", followed by synchronizing the first stream of information into a first frame structure in response to selection of the first arrangement. Claim 1 is therefore not obvious over SONET 101.

Claim 2 more specifically sets out that "the first arrangement of synchronization bits" is read "in the first stream of information". In the Office Action, the proposal is that the service adapters of FIG. 1-2 in the SONET 101 reference take the DS-3 or first stream and organize the SONET frame format with pointers "which are the synchronization bits in the SONET FRAME...". As far as can be ascertained from a close reading of SONET 101, these pointers are provided in the SONET frame; they may refer to the first stream of information, but they are not "in the first stream of information". Claim 2 is therefore not obvious over SONET 101.

Claims 3-14 inherit the limitations of claims 1 and 2 and are therefore patentable over the SONET 101 reference for the reasons given in support of those claims. Claim 15 inherits the limitations of claim 1 and is therefore patentable over the SONET 101 reference for the reasons given in support of that claim.

Claims 19-31 are rejected for obviousness over US Patent 6500648 ("Furuta"). That rejection is respectfully traversed for the following reasons.

Taking claim 19 as exemplary, a selectable frame synchronization structure transmission system is recited; the system includes "a repeater input port to accept a first stream of information including a first arrangement of synchronization bits" and "a decoder having a first input connected to the repeater input port to receive the first stream of information, the decoder reading the first arrangement of synchronization bits" in order to organize the first stream of information into a first frame structure which includes a data section and a

header section, the decoder having a second input to select the first arrangement of synchronization bits to be read.

As already explained in connection with claim 1, the first stream of information includes “a first arrangement of synchronization bits” and these synchronization bits in the first stream of information cause the synchronization of a first frame structure, not bits that are built into the first frame structure.

FIG. 13 of Furuta illustrates a frame structure with built-in overhead bits RSOH and MSOH and a virtual container. Upon a diligent reading, no teaching has been found in Furuta that these built-in overhead bits are “in the first stream of information.” Rather, they are in the fundamental structure of the frame itself. The stream of information that is received in the virtual container does possess its own synchronization information as is made clear in FIGS. 5B and 13 of Furuta. And the frame overhead bits do cooperate with the synchronization information in the virtual container. However, the cooperation is directed toward reading path information out of the virtual container contents. In contrast, claim 19 clearly recites that the decoder reads the first arrangement of synchronization bits “to organize the first stream of information into a first frame structure including a data section and a header section”. The second input of the decoder selects “the first arrangement of synchronization bits to be read.” The pointer processing means 431 in FIG. 5B of Furuta extracts header columns of virtual container contents in synchronization with a frame pulse, but this is data extraction, it is not organization of “the first stream of information into a first frame structure including a data section and a header section.” Claim 19 is therefore not obvious over Furuta. Claims 20-28 inherit the limitations of claim 19 and are therefore also not obvious over Furuta.

Claims 29-31 are drawn to a selectable frame synchronization structure communication system with a transmitter, a repeater, and “a decoder having a first input connected to the repeater input port to receive the first stream of information, the decoder reading the first arrangement of synchronization bits” in order to organize the first stream of information into a first frame structure which includes a data section and a header section, the decoder having a second input

to select the first arrangement of synchronization bits to be read. Accordingly, these claims are patentably distinguishable from Furuta for the reasons given above in support of claims 19-28.

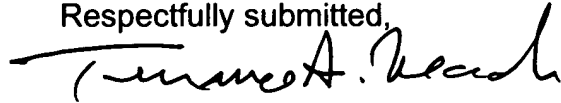
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